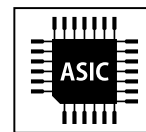
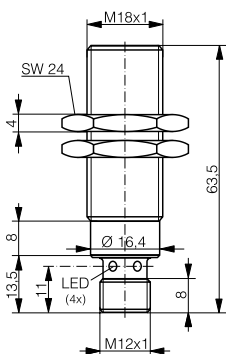


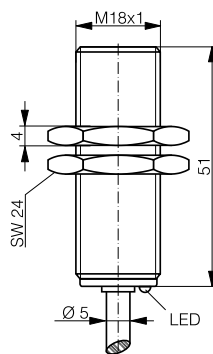
HOUSING	OPERATING DISTANCE	MOUNTING	✓ One-piece housing in stainless steel V2A ✓ Long operating distance ✓ Factor 1 on Fe and Al	✓ Extremely robust ✓ Water resistant ✓ IP68/IP69K ✓ IO-Link v1.1
M18	10 mm	Embeddable		



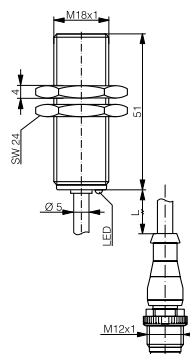
HM 2004



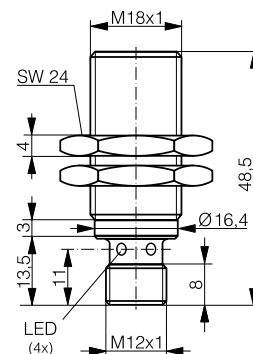
DW-AS-70x-M18-002



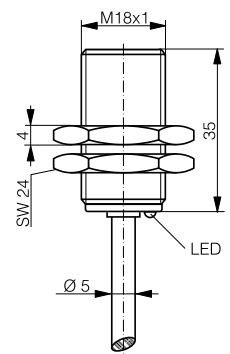
DW-AD-70x-M18



DW-AV-70x-M18-276



DW-AS-70x-M18-120



DW-AS-70x-M18-120

DETECTION DATA		INTERFACE	
Rated operating distance (S_n)	10 mm	Indicator LED, yellow	Sensing state ($0 \leq s \leq 0.8 S_r$)
Assured operating distance (S_a)	$\leq (0.81 \times S_n)$ mm	Indicator LED, yellow, blinking	Sensing state ($0.8 S_r < s \leq S_r$)
Repeat accuracy	≤ 0.3 mm	IO-Link	✓
Hysteresis	$3\% S_r \leq \text{Hyst} \leq 15\% S_r$	MTTF (@40°C)	1028 y
Temperature drift	$\leq 10\% S_r$		
Standard target	30 x 30 x 1 mm ³ , FE360		

Note: $0.9S_n \leq S_a \leq 1.1S_n$.

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U_B)	10...30 VDC	Mounting	Embeddable
Residual ripple	$\leq 20\% U_B$	Housing material	V2A / 1.4305 / AISI 303
Output current	≤ 200 mA	Sensing face material	V2A / 1.4305 / AISI 303
Output voltage drop	≤ 2.0 VDC	Max tightening torque	50 Nm
Power consumption (no-load)	≤ 10 mA	Ambient operating temperature	-25...+85°C ¹
Residual current	≤ 0.1 mA	Enclosure rating	IP68 / IP69K
Switching frequency	≤ 200 Hz	Weight (cable/connector)	see page 2
Short-circuit protection	✓	Shock and vibration	IEC 60947-5-2 / 7.4
Voltage reversal protection	✓		
Cable length max.	≤ 300 m		

¹Maximum temperature according to UL: 70°C.

Note: all data measured according to IEC 60947-5-2 standard with $U_B=20 \dots 30$ VDC, $T_A=23^\circ\text{C} \pm 5^\circ\text{C}$.

CORRECTION FACTORS FOR TARGET OF

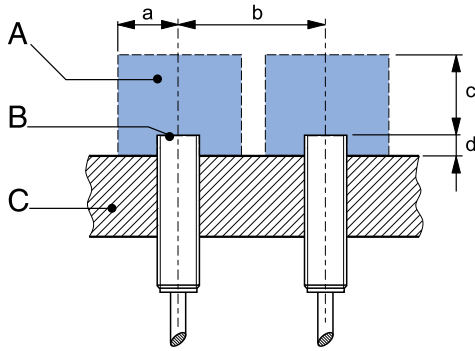
Steel FE 360	1	Copper	0.8	Aluminum	1	Brass	1.2	Stainless Steel V2A 1/2 mm	0.5 / 0.9
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CORRECTION FACTORS FOR EMBEDDABLE MOUNTING IN SUPPORT OF

Steel FE 360	0.75	Aluminum	0.9	Brass	0.75	Stainless Steel V2A	0.8
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Note: the operating distance of the sensor must be multiplied by the correction factor of the material. For example, the operating distance on Aluminum is $S_{n, Al} = S_n \times CF_{Al}$. In case of embeddable mounting, the distance is multiplied by the additional correction factor of the support, thus $S_{n, Al} = S_n \times CF_{Al} \times CF_{emb, Al}$.

INSTALLATION CONDITIONS



A : metal free zone
B : sensing face
C : support

a : 25 mm
b : 50 mm
c : 30 mm
d : steel 0 mm

Note: additional installation information can be found in the glossary of the Contrinex General Catalog.

IO-LINK FUNCTIONALITIES

IO-Link version	1.1
SIO mode	Supported
Process data	7-bit input
Baudrate	COM2 (38.4 kBaud)
Minimum cycle time	10.4 ms
ISDU	Not supported



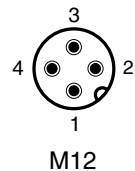
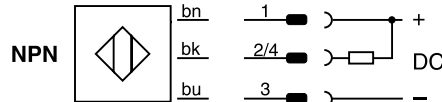
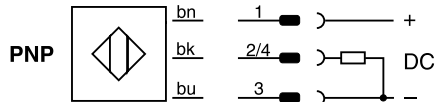
IO-Link files may be downloaded from

www.contrinex.com/product-range/inductive-sensors/.

Select the product name to display the product page with corresponding downloads.

Alternatively, just click/scan the QR code on the left.

WIRING DIAGRAM



PIN ASSIGNMENT

AVAILABLE TYPES

Part number	Part reference	Polarity	Connection	Output on pin 2	Output on pin 4 / bk	Weight
320-420-221	DW-AD-701-M18	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	115 g
320-420-222	DW-AD-702-M18	NPN	PUR, 2 m, 3 wire	Normally close (NC)	-	115 g
330-320-014	DW-AD-703-M18	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	115 g
320-420-224	DW-AD-704-M18	PNP	PUR, 2 m, 3 wire	Normally close (NC)	-	115 g
320-420-538	DW-AD-701-M18-120	NPN	PUR, 2 m, 3 wire	-	Normally open (NO)	106 g
320-420-539	DW-AD-702-M18-120	NPN	PUR, 2 m, 3 wire	Normally close (NC)	-	106 g
330-320-079	DW-AD-703-M18-120	PNP	PUR, 2 m, 3 wire	-	Normally open (NO) / IO-Link	106 g
320-420-541	DW-AD-704-M18-120	PNP	PUR, 2 m, 3 wire	Normally close (NC)	-	106 g
320-420-226	DW-AS-701-M18-002	NPN	M12 4-pin	-	Normally open (NO)	53 g
320-420-227	DW-AS-702-M18-002	NPN	M12 4-pin	Normally close (NC)	-	53 g
330-320-015	DW-AS-703-M18-002	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	53 g
320-420-229	DW-AS-704-M18-002	PNP	M12 4-pin	Normally close (NC)	-	53 g
320-420-542	DW-AS-701-M18-120	NPN	M12 4-pin	-	Normally open (NO)	47 g
320-420-543	DW-AS-702-M18-120	NPN	M12 4-pin	Normally close (NC)	-	47 g
330-320-080	DW-AS-703-M18-120	PNP	M12 4-pin	-	Normally open (NO) / IO-Link	46 g
320-420-545	DW-AS-704-M18-120	PNP	M12 4-pin	Normally close (NC)	-	47 g
320-420-052	DW-AV-701-M18-276	NPN	PUR, 0.2 m + M12 4-pin	-	Normally open (NO)	60 g
330-320-077	DW-AV-703-M18-276	PNP	PUR, 0.2 m + M12 4-pin	-	Normally open (NO) / IO-Link	67 g

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